

Patent Claims

1. A method for repairing a damaged and/or aged component of a turbomachine which is at least partially made of a composite ceramic material, having the steps of:
dissolving the joint of the component,
mechanically processing the component,
renovating the ceramic matrix of the component and restoring the joint,
the site (8) to be repaired, which has resulted from the mechanical processing of the component (1), being filled with a single monobloc insert (11) which is not a mat and not a band and has a high strength,
the edges (12) of the site (8) to be repaired and the edges of the insert (11) being designed to converge flatly.
2. The method as claimed in claim 1, characterized in that after the step of dissolving the joint, the component is decoated before further processing.
3. The method as claimed in claim 1 or 2, characterized in that weaving and/or recoating of the fibers is carried out before the infiltration step.
4. The method as claimed in one of claims 1 to 3, characterized in that the component is sintered before the step of restoring the joint.

5. The method as claimed in one of claims 1 to 4, characterized in that the component is coated before the step of restoring the joint.

6. The method as claimed in one of claims 1 to 5, characterized in that surface protection is provided after the step of restoring the joint.

7. A method for repairing a damaged and/or aged component of a gas turbine which is at least partially made of a composite ceramic material, having the steps of:

leaching out the matrix and/or mechanically processing the component,

infiltration to restore and/or renovate the ceramic matrix of the component, and

sintering the component by overfiring the gas turbine.

8. The method as claimed in claim 7, characterized in that weaving and/or recoating of the fibers is carried out after the step of leaching out the matrix and before the infiltration step.